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TI Reinforcing mortar composition for preventing water leakage and rock fall
in tunnel construction and method for constructing the same
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PA Hanil Cement Co., Ltd., S. Korea
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DT Patent
LA Korean
IC ICM C04B014-04
CC 58-3 (Cement, Concrete, and Related Building Materials)
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CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
KR 2001053808	ICM	C04B014-04

AB A reinforcing mortar composition for preventing a water leakage and rock fall in tunnel construction is provided, which improves compression strength and bending strength and has excellent adhesion and generates little amount of rebound, and a method for constructing the same is also provided, which prevents generation of dust particles and increases tunnel boring speed and working stability. The reinforcing mortar composition comprises: (i) 30-35% of cement; (ii) 28-33% of sand(S1) having a particle size of not more than 0.6 mm; (iii) 25-28% of sand(S2) having a particle size of more than 0.6 mm and not less than 2.4 mm; (iv) 5-10% of fly ash; (v) 0.1-5% of high strength mixing agent; (vi) 0.1-0.65% of super plasticizer; (vii) 0.004-0.007% of Me cellulose; and (viii) aluminate accelerator. The method comprises steps of: (i) stirring the reinforcing mortar composition in a mixer; and (ii) pumping the stirred composition of the step (i) with a rotor starter where the composition is sprayed on the inside of the tunnel by the accelerator and compressed air being connected to a pumping nozzle.

ST reinforcing mortar compn tunnel water leakage rock fall prevention

IT Ashes (residues)
(fly; reinforcing mortar composition for preventing water leakage and rock fall in tunnel construction and method for constructing the same)

IT Cement
Concrete
Mortar